

REMARKS

Claims 1-7 are all the claims pending in the application and stand rejected.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 3-7 would be allowed if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicants hold such a rewriting in abeyance at this time.

Claim Rejection - 35 U.S.C. § 103(a)

The Examiner rejected claims 1-2 under § 103(a) as being unpatentable over Masashi et al. (JP 2002111250; “Masashi”) in view of Kledzik et al. (US 6,487,078; “Kledzik”). Applicants respectfully traverse this rejection for the reasons set forth below.

Claim 1 recites, *inter alia*, a resin-made insulating heat shield inserted between the printed circuit board and the first main unit, wherein a lead hole for allowing the lead to pass therethrough and a first fixing hole for allowing the fixing element to pass therethrough are provided in the heat shield.

In the rejection, the Examiner contends that Masashi discloses most of the features in claim 1, but concedes Masashi fails to disclose a heat shield made of resin or which includes a lead hole for allowing the lead to pass therethrough. To compensate for Masashi’s deficiencies, the Examiner relies on Kledzik. Specifically, the Examiner contends that Kledzik discloses a heat shield 101 made of resin (col. 4, lines 52-55). Further, the Examiner alleges Kledzik discloses a lead hole 106 for allowing a lead 502 to pass therethrough (*also citing* FIG. 6).

As a reason to combine the references, the Examiner contends using the features of Kledzik would provide protection for the exposed leads of Masashi.

In response, Applicants submit the Examiner has failed to establish *prima facie* obviousness because this reason to combine is unsupported. Additionally, Kledzik fails to disclose a lead hole (alleged lead hole 106) for allowing a lead to pass therethrough.

First, Masashi merely discloses the use of a “fixing spacer” 141 inserted between a module 121 and a printed circuit board 111. (*see* Masashi paragraph [0014]-[0016]). The function of this fixing spacer 141 is to prevent solder crack associated with the weight of the heat sink 131, (*see* Masashi paragraph [0009]), and to reduce the continuous or intermittent vibration of a compressor or fan, *see* Masashi paragraph [0011]. Additionally, Masashi fails to disclose that this fixing spacer 141 is made of resin. Thus, Masashi discloses a “fixing spacer” which functions to prevent solder crack due to the weight of heat sink 131 and reduce the vibration of a fan.

Secondly, Kledzik is directed to the manufacture of electronic modules having increased density by coupling IC packages. (col. 4, lines 35-47). To accomplish this, a dielectric body 101 is placed between a first integrated circuit package 501 and a second integrated circuit package 507. Notably, Kledzik fails to show any dielectric body 101 positioned between the second integrated circuit 507 and the printed circuit board 503. (*See* FIG. 5). Further, to permit the close coupling, Kledzik includes pads 106 for conductively bonding to the carrier leads 108. (col. 4, line 67 through col. 5, line 1). Most notably, Kledzik does not disclose a lead hole for a lead to

pass through. Rather, the leads 502 are mounted on the upper major planar surface 102U of the package carrier 100. (*See FIG. 6*).

In conclusion, the Examiner has failed to establish *prima facie* obviousness for the following reasons. First, Kledzik fails to disclose a lead hole that allows a lead to pass therethrough. This is clearly shown in FIG. 6. Thus, the Examiner's basis for the combination, i.e., providing protection for the leads is wholly unsupported.

Second, there is absolutely no basis for modifying the material of Masashi "fixing spacer" with the material of Kledzik's dielectric body. Rather, these devices perform wholly different functions. Consequently, the requisite expectation of success in making this combination is absent.

Finally, even if combined as suggested, because Kledzik fails to disclose "a lead hole for allowing the lead to pass therethrough," even if combined as suggested, the suggested combination fails to disclose all the features recited in claim 1.

Thus, Applicants submit that claim 1 is patentably distinguishable over Masashi in view of Kledzik for at least those reasons set forth above. Additionally, Applicants submit claim 2 is patentable at least by virtue of its dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Appln. No.: 10/591,134

Attorney Docket No.: Q95305

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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